

Application Number 10/625,901
 Amendment dated December 9, 2004
 Reply to Office action of September 9, 2004

REMARKS/ARGUMENTS

Concerning the abstract:

The Examiner objects to the former abstract because it contained less than 50 words. The new abstract submitted herewith has been modified to include more than 50 words. It is believed that the present abstract now correctly describes the invention.

Concerning the specification

Several paragraph of the Summary of the invention are modified to be consistent with the scope of the claimed invention. No new matter is added.

Concerning the claims:

The Applicant thanks the Examiner for allowing the subject matter of claims 4, 6-10, and 19-23.

The number of claims subsequent to this amendment is 25. The following table lists the relationship between former and present claims numbers:

Present Claims	Former Claims	Status/Details	Present Claims	Former Claims	Status/Details
1	1	curr. amended	14	14	curr. amended
2	2	curr. amended	15	15	original
3	3	curr. amended	16	16	original
4	4	curr. amended	17	17	curr. amended
5	5	curr. amended	18	18	original
6	6	curr. amended	19	-	new
7	7	curr. amended	20	-	new
8	8	curr. amended	21	19	curr. amended

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Present Claims	Former Claims	Status/Details	Present Claims	Former Claims	Status/Details
9	9	original	22	20	curr. amended
10	10	curr. amended	23	21	curr. amended
11	11	curr. amended	24	22	curr. amended
12	12	original	25	23	curr. amended
13	13	original			

Concerning the claims rejection under 35 USC §102

The Examiner rejects claims 1, 5, 11-18 under 35 USC §102(b) as being anticipated by Miller. The Applicant respectfully disagrees with this rejection for the reasons set out below. The Applicant makes amendments to the claims which in some instances clarify the language of the claims while in others broaden their scope. The amendments are not meant to limit the breadth of the claims in any way whatsoever.

Miller teaches an optical assembly that provides a way to couple the light from an optoelectronic device, such as an LED, to an optical fiber. The optical assembly in Miller, after having been assembled, consists in an optical fiber permanently affixed (col.3 lines 25 to 27) to an optoelectronic device (see Figures 1C, 2A to 2C, 3A to 3C, 4B).

Miller teaches how to realize its optical assembly. First, "the cladding on the terminated portion of the optical fiber waveguide 110 is removed" (col.3, lines 3 to 4) and secondly, "the end of the optical fiber waveguide is polished to form a bevel" (col.3, lines 6 to 7.) Thirdly, "the exposed core of the optical fiber waveguide 201 having a polished beveled end 212 is laterally inserted into the groove such that the fiber end is directly over light-emitting area 211" (col. 3 lines 56 to 64). Also, Miller teaches in col.4, lines 13 to 30, how the fiber must be rotated such that its polished bevel surface is well oriented vis-à-vis the light-emitting diode, in order to provide coupling. Finally, "in order

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to permanently affix optical fiber waveguide 110 to the LED 100, the fiber is bonded to conductor 107 with a material, ..., such as epoxy" (col. 3 lines 27 to 29).

Miller differs from the claimed invention in many respects. The Examiner states that Miller discloses "polishing a first end of said assembly to provide a beveled surface". This is not correct. Miller does not polish an **assembly**, it polishes the optical fiber waveguide as stated above.

The Examiner states that Miller discloses "polishing at least a portion of a side of said assembly. This is not correct. It is simply not present in Miller. Where is the "at least a portion of a side" in Miller? The Examiner fails to point out exactly where this is in Miller and the Applicant fails to see where this is disclosed in Miller.

The Examiner states that Miller discloses "polishing a second end of said assembly". This is not correct. It is simply not present in Miller. Where is the "polished second end" in Miller? The Examiner fails to point out exactly where this is in Miller and the Applicant fails to see where this is disclosed in Miller.

The Examiner states that Miller discloses "providing at said second end of said assembly a mating structure". This is not correct. It is simply not present in Miller. Where is the "mating structure at the second end" in Miller? The Examiner fails to point out exactly where this is in Miller and the Applicant fails to see where this is disclosed in Miller.

Clearly, claim 1 is not anticipated by Miller. Also, the Applicant submit that the differences noted above would not be obvious to a person skilled in the art and therefore claim 1 is also non-obvious in view of the cited prior art.

Claims 5, and 11-18 being dependent on an otherwise allowable claims are also considered novel and non-obvious.

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Concerning the claims rejection under 35 USC §103

The Examiner rejects claims 2 and 3 under 35 USC §103(a) as being obvious having regard to Miller in view of Sasaki. The Applicant respectfully disagrees with this rejection for the reasons set out hereinbelow.


Claims 2 and 3 depend on claim 1 which comprises many differences with Miller as stated above and Sasaki as well. In view of these major differences, the combination of Miller and Sasaki cannot render claims 2 and 3 obvious.

It is therefore believed that this obviousness rejection should be withdrawn.

In view of the foregoing, reconsideration of the rejection of claims are respectfully requested. It is believed that claims are allowable over the prior art, and a Notice of Allowance is earnestly solicited.

Respectfully submitted,
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By:


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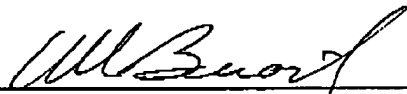
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Signature

December 9, 2004

Date

ABSTRACT OF THE DISCLOSURE

An optical connector and a manufacturing method are disclosed. The method for manufacturing an optical connector achieving a mechanical coupling comprises embedding a length of at least one optical fiber in a body to form an assembly. It also comprises to remove, at a first end of the assembly, a portion to provide a beveled surface on a corresponding first end of the optical fiber at which light is reflected for a side coupling. Also, at a portion of a side of the assembly near the first end, the method comprises creating an optical surface to provide a flat coupling surface for said side coupling. The method also comprises removing, at a second end of the assembly, a portion to provide a flat abutment surface including a corresponding second end of the at least one optical fiber. The method also comprises providing at the second end of the assembly a mating structure for precision connecting with a complementary connector in which an optical waveguide is end-coupled with at least one of the optical fiber.